# NATURAL RESOURCES CONSERVATION SERVICE Wyoming CONSTRUCTION SPECIFICATIONS FOR LAND RECLAMATION SHAFT AND ADIT CLOSING

(Owner/Operator)

(Project Title)

# **GENERAL**

Installation shall be in accordance with an approved design and plan. Details of construction shown on the drawings but not included herein are considered as a part of this specification. Construction activities shall be in accordance with applicable OSHA regulations.

### **CLEANING**

Shafts shall be cleaned of all trash, debris, metal, timber, wire, and other refuse in the hole that could hinder an effective design filling. Adits shall be cleaned of the same materials, if present, plus all earth and rock materials that must be removed to permit the planned treatment. All materials removed shall be disposed of by burning or burying at approved sites or transported to sanitary landfills. Soil or rock materials to be used in the filling operation shall be stockpiled and protected until used.

# FILLING SHAFTS

The ground near the shaft must be stable enough to support machinery and materials, or provisions must be made for safe operations. All needed safety barriers and warning devices must be present and operating before work starts. Materials that are to be placed later with a frontend loader or crane are to be stockpiled at a safe distance from the shaft entrance. This distance should normally be 10 m (30 ft) from the collapse zone. The materials shall meet the quality requirements specified in the plans. The material should be placed in the center of the hole and dropped vertically to prevent damaging the shaft wall or bridging, causing improper filling or excessive voids. The individual types

of materials shall be graded as specified. Different gradations or types of soil and rock materials shall not be intermingled and shall have a generally smooth interface between the different zones. The top layer shall be placed as specified and graded to provide positive drainage away from the filled shaft entrance.

### **CLOSING ADITS**

The fill or concrete shall be placed to line and grade in the manner specified in the plans. Materials shall be compacted as necessary to achieve the required density. Any filter and drain material shall meet required gradation and be placed to line and grade as shown on the drawings. Any bare earth shall be covered with soil materials, graded to provide positive drainage, and established to permanent vegetation. If climatic or other conditions preclude vegetation, materials such as gravels or other mulches can be used. The completed job shall be clean and neat and present a workmanlike appearance. Any required protection and warning measures and signs must be installed as specified.

# ADDITIONAL SPECIFICATIONS

NRCS, WY May 2003